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managed by Brookhaven Science Associates
for the U.S. Department of Energy

Mr. Brian Jankauskas
New York State Dept. of Environmental Conservation
Division of Environmental Remediation
625 Broadway – 12th Floor
New York, New York 12233-7051

November 9, 2020

Ms. Sharon Hartzell
Federal Facilities Section
U.S. EPA – Region II
290 Broadway – 18th Floor
New York, New York 10007-1866

Dear Mr. Jankauskas and Ms. Hartzell:

**SUBJECT: BROOKHAVEN NATIONAL LABORATORY (BNL) INTERAGENCY
AGREEMENT (IAG) – MONTHLY REPORT FOR OCTOBER 2020**

In accordance with the Interagency Agreement (IAG) for Brookhaven National Laboratory (BNL), enclosed is the Monthly Report for October 2020 covering the Long-term Stewardship (LTS) areas listed below:

- Brookhaven Graphite Research Reactor (BGRR) Surveillance and Maintenance
- High Flux Beam Reactor (HFBR), including the Waste Loading Area (WLA) Surveillance and Maintenance
- Soil and Water Remediation

If you have any questions, please call Gerald Granzen at (631) 344-4089.

Sincerely,

A handwritten signature in black ink, appearing to read "W. Dorsch", with a stylized flourish at the end.

William Dorsch, Manager
Groundwater Protection Group

Enclosure:

As stated

cc: w/encl.

P. Armani, NYSDEC
C. Costello, NYSDOH
S. Karpinski, NYSDOH
D. O'Hehir, NYSDOH
A. Rapijko, SCDHS
J. Wanlass, SCDHS
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R. Howe, BSA
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File: GWER 17.1.20

Brookhaven National Laboratory
Interagency Agreement (IAG) Monthly Report
October 2020
Long Term Stewardship (LTS) Activities

**BROOKHAVEN GRAPHITE RESEARCH REACTOR (BGRR) SURVEILLANCE AND
MAINTENANCE**

Current Month Technical Performance Analysis

Accomplishments and/or Technical Achievements

- Performed quarterly inspection of the high bay and former offices and semi-annual inspection of the engineered cap 10/23/20. Successfully tested the leak detection in the deep pit. No new significant issues were identified.
- The annual structural inspection was performed, and no significant issues were identified.

Highlights of any changes to objectives and description of any changes in technical approach

- None.

Key Issues

- None.

Planned Actions for the Next 90 Days

- Continue S&M activities.

**HIGH FLUX BEAM REACTOR (HFBR) INCLUDING, STACK, GROUNDS, AND WASTE
LOADING AREA (WLA) SURVEILLANCE AND MAINTENANCE**

Current Month Technical Performance Analysis

Accomplishments and/or Technical Achievements

- BSA and BHSO participated in the weekly stack demolition coordination teleconferences with the Army Corps of Engineers (USACE) and DOE's Office of Environmental Management (EM).
- The exterior stack abatement phase of the project continued.
- DOE-EM briefed the regulators on the status of the stack demolition during the 10/1/20 IAG monthly teleconference.
- BSA, DOE and USACE participated in the stack pre-demolition teleconference with the contractor 10/27/20.
- Community Air Monitoring Plan (CAMP) air monitoring data was distributed to the regulators weekly.

- Performed quarterly inspection 10/29/20 of the confinement dome and outside areas as well as the annual structural inspection. Several areas of debris potentially containing asbestos in the confinement dome were evaluated. A follow-up entry by the asbestos shop will be made to clean up any potential asbestos containing material and post these areas with asbestos warning signs. No other issues were identified.

Highlights of any changes to objectives and description of any changes in technical approach

- None.

Key Issues

- Received EPA approval of the milestone extension request for the stack demolition 10/6/20.
- Submitted an updated summary schedule for the stack demolition to the regulators 10/28/20.

Planned Actions for the Next 90 Days

- Continue S&M activities.
- The demolition contractor to complete stack exterior coating abatement early November.
- Deployment of the MANTIS stack demolition equipment is currently scheduled for late November.
- NYSDEC is planning to conduct a site visit of the stack demolition 11/3/20.

SOIL AND WATER REMEDIATION

Current Month Technical Performance Analysis

Accomplishments and/or Technical Achievements:

- The IAG monthly teleconference was held 10/1/20 and included updates on PFAS Phase 5 characterization, groundwater characterization activities, HFBR stack demolition and the Five Year Review.
- The virtual Community Advisory Council (CAC) meeting was held 10/8/20 and included brief updates on the HFBR stack demolition and Building 650 demolition.
- The annual IAG Schedules Update is being reviewed by BSA and BHSO.
- The contractor and BNL Environmental Protection Division crews completed installation of 66 PFAS Phase 5 temporary wells (Geoprobes) downgradient of the Current and Former Firehouses. All analytical data will be reviewed to determine whether additional wells are needed. A design services contract for the design of the two PFAS treatment systems was awarded.
- Work continued for groundwater characterization activities recommended in the 2019 Groundwater Status Report:
 - Completed installation of two new monitoring wells for the OU VI ethylene dibromide (EDB) project.
 - A permanent monitoring well was installed at the leading edge of the BGRR Sr-90 plume.

- The pump in North Street East ethylene dibromide (EDB) extraction well NSE-4 has failed and will be repaired/replaced.
- There were several holes in the drop pipe connected to the pump in extraction well EW-3 at the Chemical Holes Treatment System. The pipe was replaced, and the pump reinstalled.
- The OU VI EDB system was restarted following repairs to the control panel.
- A carbon change-out at OU VI EDB Treatment System was performed 10/13/20.
- A resin change-out was completed at the BGRR Sr-90 Treatment System and the system was restarted.
- The 2nd Quarter Operations Report was issued to the regulators 10/8/20.

Highlights of any changes to objectives and description of any changes in technical approach

- The Building 650 Demolition Work Plan was submitted to the regulators 10/5/20.

Key Issues

- The Laboratory continued Phase 2 operations. The Groundwater Protection Group (GPG) maintained minimal staff working on-site to manage field activities. All other GPG staff continue to work remotely.
- NYSDEC to provide follow-up letter as a result of the August inspection of the PR-WC-06 sediment cleanup area vegetation recovery by the NYSDEC Biologist.

Planned Actions for the Next 90 Days

- The Laboratory and GPG will continue Phase 2 operations.
- The monthly IAG teleconference is scheduled for 11/5/20 and will include updates on HFBR stack demolition, Phase 5 PFAS characterization and the upcoming CAC meeting.
- The virtual CAC meeting is scheduled for 11/12/20 and will include a presentation on the annual groundwater remediation status.
- Submit the annual IAG Schedules Update to the regulators by 11/30/20.
- Prepare and submit a summary data report to the regulators on the Phase 4 PFAS/1,4-dioxane sampling of ~350 on-site and off-site monitoring wells and off-site extraction wells.
- If needed, install additional Phase 5 PFAS temporary wells downgradient of the Current and Former Firehouses.
- Issue annual letters to the four homeowners offering free testing of their private drinking water well.
- Perform repairs to the roof of the Building 96 Treatment System extraction well RTW-1 well-house.
- Complete repair to the wet well piping and flow meter at the Middle Road/South Boundary/Western South Boundary.